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EXECUTIVE COUNTY SUPERINTENDENT

January 8, 2008

Dr. Edward D. Westervelt, Superintendent
Red Bank Regional High School District
101 Ridge Road
Little Silver, NJ 07739

Dear Dr. Westervelt:

Your local district technology plan was approved by the County Coordinating Council. You must now submit to the state the approval letter and the Technology Plan. These documents will only be accepted electronically in PDF format. **If the electronic submissions are not in PDF format, they will not be considered submitted.**

To verify that your plan is approved, the department will list your district on their "Approved Technology Plans" website at <http://www.nj.gov/njded/techno/localtech/>.

We encourage you to post the approved technology plan on your web site.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carole Knopp Morris".

Carole Knopp Morris
Executive County Superintendent

CKM/al

cc: Sandy O'Neil, Department of Education
Domenick LaGaipa, Monmouth County School Business Administrator
Christina Galvao, School Business Administrator/Board Secretary

Red Bank Regional High School

*Technology Plan
July 1, 2007 – June 30, 2010*



**Dr. Edward Westervelt
Superintendent**

**Mr. Steve Terhune
Business Administrator
Director of Technology**

Table of Contents

Stakeholders	3
Vision & Mission Statement	4
Technology Overview	5
Cyber Safety	6
Needs Assessment	6
Three-Year Goals & Objectives	7
Three-Year Implementation Strategies/ Activities Tables	11
Funding Plan	14
Professional Development	14
Evaluation Plan	16
Appendix 1 – Technology Inventory	
Appendix 2 – Acceptable Use Policy	
Appendix 3 – Staff Technology Survey	

II. Executive Summary:

Red Bank Regional High School is a comprehensive regional high school district comprising grades 9-12 located in Little Silver, New Jersey, and composed of three contiguous districts: Red Bank, Little Silver, and Shrewsbury. The average annual enrollment is 1,150 students.

The district has a history of academic excellence and provides a variety of educational programs that complement the talents and skills of the students. The district receives tuition paying students from a number of sending districts in the county for various programs in performing arts and technical education areas. Approximately 85% to 90% of the graduating class goes on to two or four year college programs.

Technology Vision

The future growth of Red Bank Regional High School, and the nation at large, will depend, to a large degree, on the vision we hold for our students today. Much like the architect's blueprint, the district's *Technology Plan* will constitute a foundation for future growth. Red Bank Regional High School recognizes the need to update and expand programs to prepare students to live, work, learn, and share information with each other in the United States and around the world. We recognize that communications technologies will play a critical role in a global economy. It is also recognized that in order to achieve these goals schools must continue to develop and participate in programs that train students and staff in the use and application of current technologies.

The Red Bank Regional High School District is committed to preparing all students to be successful, responsible contributors to an ever-changing global society. Part of this vision is to enable each student to integrate the use of information technology in learning so that they are comfortable and fluent with the technological applications.

Technology Mission Statement

The Red Bank Regional High School District recognizes the need to research, evaluate and implement technology to help students develop skills as life long learners and participants in the information society.

III. Technology Overview:

A. Technology

1. See Appendix 1

2. In conjunction with Red Bank Regional's current inventory, it is necessary to improve student academic achievement through 2010 by including:

- i.** Upgrading the district's network infrastructure including new wiring, adding and upgrading switches, creating a Video Streaming server and infrastructure to support it.
- ii.** The addition of several new servers including but not limited to:
 1. Student Management System Server
 2. Media Server
- iii.** A Technology Maintenance Committee consisting of stakeholders exists to evaluate the technology plan to match district technology goals and objectives.
- iv.** Telecommunications is provided in district at Red Bank Regional. Over the next three years the district will be assessing the current PBX and phone call management software to make recommendations for improvements on the current systems. The district will also expand its text messaging capabilities so that staff, parents, and students can be kept abreast of district information.
- v.** Repair requests are submitted electronically and resolution activities are recorded for archival and reference purposes. The data retained identifies the nature of the problem, when the repair was completed, description of the repair and the individual who made the repair .
- vi.** Continue to update current switch network for more bandwidth for desktops to support steaming video, etc.
- vii.** The technology department will work to organize shared services with its neighboring sending districts including but not limited to Student Management Software and the printing of school forms, letterhead, etc.

3. Red Bank Regional High School is vigilant in accommodating the needs of all students with regard to technology. In addition to hardware such as interactive white boards, all staff members are encouraged to attend out-of-district workshops on assistive technology.

The district also conducts a number of workshops during the school year and during the summer on technology integration, including the creation of teacher websites.

4. The district website has been upgraded over the past two years. All stakeholders have accessibility to the district's website. Our website is used for teacher lesson planning, district calendars and important district information.

5. The Technology Department personnel maintain a hardware inventory of all servers, workstations, printers, and networking devices. Classroom instructors are advised of preventative maintenance procedures and are encouraged to implement those actions. However, systems need to be replaced for various reasons. It has been the practice of Red Bank Regional to continue to make use of older, out-dated systems. The district will continue to replace obsolete hardware but will retain those units which in turn can be used to train student technicians and to be used in the computer repair program. Hardware is deemed obsolete when it can no longer operate or cannot be effectively used by the instructor and the students. This may occur when a new, more powerful program has been purchased and system requirements fall below minimum operation capability.

B. Cyber Safety

1. Red Bank Regional High School uses Smart Filter for web filtering and Smart Reporter for tracking all internet activity. The district uses Barracuda software for spam protection.

2. See Appendix 2.

3. Students are educated about online safety through a yearly program facilitated by the district Media Specialist.

4. The district conducts an internet safety seminar for parents each year in the evening. This seminar is conducted by the Monmouth County Prosecutor's Office.

C. Needs Assessment

A district-wide technology self-assessment survey was developed for the instructional staff. This was completed online by 62 staff members. Analysis of this staff assessment survey reveals staff needs and competencies. The following is an overview of our current educational technology environment and barriers.

- Staff is assured access to technology as equipment and network access are available in every room in the district. This includes technology labs throughout school building, internet access district-wide as well as web-based access to online lesson planner and grade book, and web-based email.

- Students have access to technology during technology classes, open technology lab times, computer lab activities during subject area classes, and library media centers
- The needs of the staff are evaluated through online surveys by both the professional development committee and the technology plan committee
- The needs of the students are evaluated through an online survey as well as teacher input.
- Past professional development activities related to technology integration were provided by Innovative Designs for Education (IDE) and outside workshops.
- Administrators participated in various outside workshops as well as district-sponsored technology workshops.
- An attempt was made to provide all staff and administrators with ongoing, sustained professional development to further the effective use of technology. Individual requests for instruction were honored as needed by the administration, technology staff or colleagues.
- Supports other than professional development were provided for staff through services rendered by the technology personnel in response to tech support requests
- Staff reported the following barriers to using educational technology as part of instruction: not enough access to the technology lab, too few tech classes, not enough computers in the classroom, outdated equipment, not enough time for staff development, lack of knowledge about software.

Based on the analysis of our needs assessments, it would be advantageous for our district to consider the following recommendations in order of importance:

- Staff development for hardware and software usage.
- Development of wireless computer lab capabilities.

IV. Three-Year Goals and Objectives

A. History

1. Integrate technology through the curriculum.

All teachers will have the training and support they need to help all students learn through computers through the information superhighway.

All students and teachers have access to computers with Internet/Network capabilities in their classroom.

Effective and engaging software and on-line resource will be an integral part of every school curriculum available to schools.

2. The following summarizes the on-going and completed work for the goals and objectives of the 2004-2007 plan.

2004-2005

- Classroom moves and reorganization through construction
- Changes in network infrastructure through construction – Included the addition of new wiring, new wiring closets, new routers.
- STI Implementation
- Creation of a disaster recovery system for the network – We now have a multi-level automated backup and recovery system in place. All critical files and programs are backed up each evening to a network storage device. The entire network is backed up to a dedicated tape library every night. This library automates the rotation of 10 different tapes. Each month 10 tapes are taken offsite for recovery purposes in case of a disaster. We are also evaluating an automated offsite backup solution for the future as our technology continues to advance.
- Upgrade of T1 connection to the internet – We expanded from one T1 connection to two T1 connections. As our use of internet based technology continues to grow we will evaluate the further upgrading of our T1 connections.
- Creation of a Microsoft software patch server – This server automates the installation of critical software patches for our Microsoft based software, our STI software and several other packages.
- Upgrade network-wide virus protection – This server continuously monitors the network for viruses. Additionally, it automatically confirms that we are using the latest virus definitions in our software so that we are not surprised by an outbreak.
- Continued expansion of classroom level technology

2005-06

- Install Microsoft Exchange Server – This will improve and upgrade our district email system. It will also allow for better sharing of calendars, contacts and files among the staff. Completed.
- Add Part-time staff member – Completed.
- Pilot wireless access points – The first wireless access point has been activated in the media center. We will be following shortly with additional access points in the commons and fieldhouse. Completed.
- Expand available technology in the building (STI, IDE, etc) – We have taken the media center computers (which were replaced) and rolled them out into the classrooms. Additionally, we have begun to upgrade the laptops for the repeat IDE participants. Completed.
- Upgrade lab technology – We have updated the computers in the CAD program to better handle the software utilized in the program, we have replaced the computers in the media center (rolling the old ones into the classroom), the old computers from CAD were moved to one of the business classes to replace their

old computers, the old computers from the business class were moved to the new College and Career Center for use. Completed.

- Adjust domain controller configuration to accommodate the future – We have completely reconfigured the network for future growth. This was completed in August.
- Take responsibility for website – This transition occurred in August. Krishna will now maintain the district website.
- Simplify website address – Our new address is active for the website (www.rbrhs.org) and will be shortly for email as well. Completed.
- Expand website offerings (policy manual, secure staff member section, secure BOE section, Community Email Notification System) – This is planned for throughout the school year.
- Update Spam/Worm filter – Completed.
- Document network infrastructure through CAD illustrations – Our entire network has been documented in CAD illustrations by the AOIT intern that we hired this summer. Completed.
- Upgrade phone system – Phase I – This will upgrade our caller ID system for security purposes. Additionally, we will be upgrading the design of our incoming line, which should save several thousand dollars in line costs this year. The new system will also include a call accounting package. Completed.
- Security Camera system integration – We have installed a completely digital camera system. All recordings from the cameras will be to a server, which will maintain 21 days of data at a time. The recordings and cameras will be accessible over the network to authenticated personnel or to the police station if required. We have also added 4 new cameras to the system (one on the exterior driveway, one on the outside pay phones, one on the inside pay phone and one down the main hallway by the principal's office). We intend to expand the system by 3-5 cameras a year. Completed.
- Contract with a consultant to conduct a full system security audit – use weaknesses identified in the audit for future network improvement. The audit should be complete by mid-Spring.

2006-07

- Installation of an Intrusion Detection system – This system would automate the detection of intruders/hackers on the network. This will be critical as we open up the STI program for parental access and expand our wireless access points.
- Continued expansion of website
- Expansion of wireless access points
- Continue to upgrade internal network infrastructure
- Phone system upgrade – Phase II – This will upgrade the voicemail system to a digital system and will provide the foundation for the later introduction of voice over IP for classroom phone access.
- Electronic BOE meetings – As expressed by the BOE a desire to eliminate the paper based board packet for one residing on a password protected section of the website.

- Create licensing control system – Provide better control over software licenses to ensure that the district is not utilizing unlicensed software that would be a potential liability.
- Replace Internet Filter Software – Our filtering software is slowly being phased out by manufacturer.
- Expand Media Center technology – Provide additional computer stations within the media center and reconfigure the current layout for better use of space.
- Continued replacement of some IDE laptops
- Replacement of older classroom computers
- Evaluate and implement data warehouse system – A large undertaking that will be evaluated during the school year for recommendation in 07-08 budget.
- Expand technology staffing by hiring one additional full-time network technician.

B. Goals and Objectives for 2007-2010

Goal #1.: Integrate technology through the curriculum.

Objective 1.1: To align the Red Bank Regional High School curriculum with the New Jersey Core Curriculum Content Standards for Technological Literacy.

Goal #2: All teachers will have the training and support they need to help all students learn through computers through the information superhighway

Objective 2.1: To enable each teacher to receive hands-on training in computer applications and the World Wide Web and the infusing concepts into the curriculum.

Goals #3: All students and teachers have access to computers with Internet/Network capabilities in their classroom

Objective 3.1: Existing access to computers with Internet capabilities will be expanded.

Goal #4: Effective and engaging software and on-line resource will be an integral part of every school curriculum available to schools.

Objective 4:1 To identify and /or provide engaging software and on-line resources for instructional use.

V. Three-Year Implementation Activity Tables

Goal #1: Integrate technology through the curriculum.

Objective1.1: To align the Red Bank Regional High School curriculum with the New Jersey Core Curriculum Content Standards for Technological Literacy.

Benchmark Outcome	Timelines	Responsibility	Documentation
1.1.1. Review each subject /content area curriculum and determine the alignment with the NJ Core Curriculum Content Standards with specific notice to the technology indicators.	Ongoing July 2007- June 2010	Teachers on subject area curriculum committee IDE Consultants Department supervisor	Notations on curriculum guide. Report from meetings
1.1.2 Revise/supplement curriculum to reflect alignment adjustments of any deficiencies	Ongoing July 2007- June 2010	Teachers on subject area curriculum committee Department supervisor	Notations on curriculum guide. Report from meetings
1.1.3 Identify technology that supports the objectives of the NJ Core Content Standards	Ongoing July 2007- June 2010	Department supervisor IDE Consultants Teachers	Purchase Orders List of technology with justification of curriculum objectives
1.1.4 Revise and add activities related to technology as identified	Ongoing July 2007- June 2010	Teachers on subject area curriculum committee	Completed curriculum that identifies the technology activities with the objective and the Core Content Standards

Goal #2: All teachers will have the training and support they need to help all students learn through computers through the information superhighway

Objective 2.1: To enable each teacher to receive hands-on training in computer applications and the World Wide Web and the infusing concepts into the curriculum.

Benchmark Outcome	Timelines	Responsibility	Documentation
2.1.1 Continue to provide on-going in-service training for staff as identified in the Technology Training Needs Assessment.	Ongoing July 2007-June 2010	Department supervisors and Principal will prepare a list of training opportunities (both in –district and out-of-district) for staff. Training will be provided by RBRHS staff, Director of Educational Technology, or training specialist, (IDE) as needed.	Technology Training Needs Assessment Survey results Individual Professional Improvement Plans will reflect such courses, seminars, or workshops Attendance lists of in-house programs Department meeting agenda
2.1.2 Continue to administer the Technology Training Needs Assessment survey annually to determine staff training needs.	Ongoing July 2007-June 2010	Director of Educational Technology	Technology Training Needs Assessment Survey results

Goals #3: All students and teachers have access to computers with Internet/Network capabilities in their classroom

Objective 3.1: Existing access to computers with Internet capabilities will be expanded.

Benchmark Outcome	Timelines	Responsibility	Documentation
3.1.1 Continue the established hours in the Media Center as follows: 7:00am-4:00pm. Expand the hours of access in the Internet Lab from 7:30am-2:30pm to 7:30am -3:30 pm.	Ongoing July 2007-June 2010	Superintendent Principal Media Specialist Director of Educational Technology	Notices to staff Success Contracts forms Volunteer Lists
3.1.2 Provide additional access to the media center computer software (CD	Ongoing July 2007-June 2010	Superintendent Principal Media Specialist	Purchase Orders Inventory Lists

ROM collection, electronic card catalog, etc.) after hours via the World Wide Web.			
3.1.3. Create increased opportunity for community members and students to utilize the computers in the Media Center in the evening from 6pm-9pm	Ongoing July 2007- June 2010	Superintendent Principal Media Specialist	Notices to students

Goal #4: Effective and engaging software and on-line resource will be an integral part of every school curriculum available to schools.

Objective 4:1 To identify and /or provide engaging software and on-line resources for instructional use.

Benchmark Outcome	Timelines	Responsibility	Documentation
4.1.1 Continue to investigate professional materials that review available software and CD-ROM educational materials. The results of such investigation will be published as additions to the existing media center catalogs	Ongoing July 2007-June 2010	Principal Department Supervisors Media Specialist	Media Center Software Catalog Media Center CD-ROM Catalog Memos to Staff Purchase Orders
4.1.2 Continue to incorporate technology and software materials into the classroom reinforcing the NJ Core Content Standards.	Ongoing July 2007-June 2010	Department Supervisors	Lesson Plans Updated courses of study Professional Improvement Plans

VI. Funding Plan (July 2007-June 2008)

The 2007-2008 regional school budget has been approved by the voters of the three contiguous Districts, Red Bank, Little Silver and Shrewsbury. Contained within the district's budget is the technology budget in the amount of \$328,000 to be used to include but not limited to the introduction of new computers, servers, switches, firewall, software, teacher technology training for our academies, text books, online courses for students, telecommunication requirements and staff development.

The voters, superintendent and the Board of Education have made a commitment to the students of Red Bank Regional to provide adequate funding to complete the implementation of future technological innovations and programs such as the expansion on the Pre-Engineering Academy and the Academy of Information Technology.

Each department supervisor has budgeted technology needs within his/her area and will consult with the Director of Information Technology as to the products to purchase, vendors to use and technologies required.

The district has also applied for and has been awarded e-rate funding for reimbursement of its telecommunications expenses and networking projects and hardware.

The current district expenditure for technological necessities including hardware and software acquisitions, system upgrades, net work cabling, and professional development and staffing expenses is approximately 1.2% of the regional budget.

VII. Professional Development

The staff regularly attends out-of-district tech training and work closely with administration by keeping them informed of current technology practices. Teachers have received professional development, in district as well as out of district workshops, so that they may make use of a vast array of educational technology resources available to them. Every classroom, office, and each media center has at least one workstation with high speed Internet access and network software available. Each classroom in the district has a large screen T.V. or mounted projector connected to the teacher's PC so that digital content can be viewed by the class. Each administrator has access to his or her own PC. Staff that require training on assistive technology applications are sent to various workshops and conferences in addition to the turnkey training that occurs within district. Professional Growth Plans may be used to help ensure technology integration occurs in the content areas as well as support areas.

Our ongoing professional development opportunities reflect the selected priority problems identified using the Staff Technology Self-Assessment and our Local Professional Development Committee survey. The results of these assessments indicate

the technology training needs listed below and will occur over the three year time span of 2007-2010:

Area of Need	Target Population	Location	In Class Support Provided by:
Effective classroom use of instructional software	All Teachers	Individual Classrooms	Technology teacher and technician
Application software: MS PowerPoint, Excel, Access, and United Streaming	Faculty and administration	Media Centers Individual classrooms & tech labs	Media Specialist, technology teacher, other staff members and technician
Integrating simulation software into content area lessons	Faculty	Individual classrooms & tech labs	Technology teacher and other staff members
Hardware training: Starboard, digital camcorder, scanner, document camera	Faculty and administration	Individual classrooms & tech labs	Superintendent, principal, technology teacher, other staff members and technician

During the 2007-08 school year, a brief portion of each faculty meeting will be used to introduce new hardware and software to faculty and administration with follow up training to occur with small group or individual instruction in the classroom or tech lab. Faculty members needing further expertise in using new technologies will attend workshops and meetings.

Specialized training will also be made available to selected staff members. Training for Project Lead the Way and the Academy of Information Technology instructors will be provided throughout the 2007-2010 school years.

Training will be offered to staff and administration in various software and hardware areas. New technologies will determine where the district will concentrate its staff development initiatives. Areas of consideration are: Web Page Design, Digital Media, Student Management Software, basic computer troubleshooting, Microsoft Office, Publisher, Wireless Technologies, PhotoShop, and Web Quests.

During the 2007-2010 time periods, academic departments will continue to explore the Internet instructional activities that can be added to the course curriculum. Students will be introduced to on-line lessons and research projects using Internet search engines. In addition, software will be purchased to enhance lesson presentations and encourage student discovery of concepts rather than traditional listening to lectures. Staff will need training on how to operate the software and to implement suggestions for appropriate classroom applications, Staff will be encouraged to attend courses, workshops, seminars, and conferences on the topics of technology and software applications.

During the 2007-2010 school years the following resources are available for staff development:

- ✓ Innovative Designs for Education Corporation
- ✓ National Academy Foundation
- ✓ Red Bank Regional High School Community Adult School
- ✓ Individual out-of-district workshops on selected computer related topics
- ✓ On-site workshops by software specialists
- ✓ After-school workshops offered by selected Red Bank Regional High School staff
- ✓ Joint workshops and training with area schools
- ✓ Brookdale Community College

VII. Evaluation Plan

The Director of Educational Technology and the Technology Committee will routinely review the Technology Plan to determine the extent to which the technology resources promote the teaching and learning process at Red Bank Regional High School. The evaluation will monitor the following areas of the plan: facilities, maintenance and upgrading of equipment, software, staff development, funding sources, implementation strategies and purchase orders.

The annual report will assess the following:

1. The current status of each area as related to the timelines and goals
2. Whether or not the goals in the technology plan have been achieved or exceeded
3. Whether or not the goals were accomplished (If not, why?)

Revisions will reflect the progress made and report anticipated adjustments to achieve the goals set by the district technology plan.

